

## CLINICAL EVALUATION OF COMBINED BOVINE-DERIVED XENOGRAFT AND AUTOGENOUS BONE GRAFT FOR THE TREATMENT OF PERIODONTAL OSSEOUS DEFECTS IN HUMANS

### Abstract

Intraosseous periodontal defects present a particular treatment problem. New bone replacement grafts offer promise for improved results. The purpose of this study was to compare the clinical effectiveness of anorganic bovine bone (ABB) used alone or in combination with autogenous bone (AB) in the treatment of periodontal osseous defects in humans. A total of 20 defects were treated in 10 patients, 10 defects were treated in ABB and 10 defects with ABB/AB. Two osseous defects per patient were treated randomly, within each procedure after surgical preparation. Appropriate periodontal maintenance schedules were followed, and at 6 months both clinical and radiographic changes were compared to baseline measurements to evaluate and compare the effects of the two grafts. For radiographic evaluation the digital Digora system was used, both linear and radiometric measurement (density) were performed. Postsurgical measurements taken at 6 months revealed a significant improvement in clinical parameters. As regard bone density, both grafts showed at 6 months a significant increase, 41.3% increase in bone density for ABB/AB graft and 22.7% increase for ABB. The differences in bone density were statistically significant in favour of ABB/AB treated site. The results of this study indicate that clinical resolution intrabony defects can be achieved using a combination of anorganic bovine bone and autogenous bone and promote defect fill when compared to presurgical levels.